JVC

MEGAPIXEL IP CAMERA

VN-X35U

READ ME FIRST

LST0744-001A

Thank you for purchasing this JVC product.
Before operating this unit, please read the instructions carefully to ensure the best possible performance.

■ This manual describes basic usage of VN-X35U.

For detailed usage of VN-X35U, please refer to [INSTRUCTIONS]（pdf).
For latest information, please refer to “README” file in the CD-ROM.

- The supplied CD-ROM includes [INSTRUCTIONS](pdf), [API Guide](pdf), [Search tool] and [White Spot Correction Tool].

■ Content of this manual

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- Illustrated designs, specifications and other contents of this manual are subject to changes for improvement without prior notice.

Check the Accessories/Attachments.

- Read Me First
- CD-ROM
- Warranty Card (For USA)
- Service Information Card(For USA)

IMPORTANT SAFEGUARDS

1. Read all of these instructions.
2. Save these instructions for later use.
3. All warnings on the product and in the operating instructions should be adhered to.
4. Unplug this appliance system from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
5. Do not use attachments not recommended by the appliance manufacturer as they may cause hazards.
6. Do not use this appliance near water - for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, etc.
7. Do not place this appliance on an unstable cart, stand, or table. The appliance may fall, causing serious injury to a child or adult, and serious damage to the appliance. Use only with a cart or stand recommended by the manufacturer, or sold with the appliance. Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturer. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

   PORTABLE CART WARNING (symbol provided by RETAC)

   S3125A
8. Slots and openings in the cabinet and the back or bottom are provided for ventilation, and to insure reliable operation of the appliance and to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the appliance on a bed, sofa, rug, or other similar surface. This appliance should never be placed near or over a radiator or heat register. This appliance should not be placed in a built-in installation such as a bookcase unless proper ventilation is provided.
9. This appliance should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your dealer or local power company. For appliance designed to operate from battery power, refer to the operating instructions.
10. For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.
11. Do not allow anything to rest on the power cord. Do not locate this appliance where the cord will be abused by persons walking on it.
12. Follow all warnings and instructions marked on the appliance.
13. Do not overload wall outlets and extension cords as this can result in fire or electric shock.
14. Never push objects of any kind into this appliance through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the appliance.
15. Do not attempt to service this appliance yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
16. Unplug this appliance from the wall outlet and refer servicing to qualified service personnel under the following conditions:
    a. When the power cord or plug is damaged or frayed.
    b. If liquid has been spilled into the appliance.
    c. If the appliance has been exposed to rain or water.
    d. If the appliance does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the appliance to normal operation.
    e. If the appliance has been dropped or the cabinet has been damaged.
    f. When the appliance exhibits a distinct change in performance - this indicates a need for service.
17. When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
18. Upon completion of any service or repairs to this appliance, ask the service technician to perform routine safety checks to determine that the appliance is in safe operating condition.

Attention:
This symbol is only valid in the European Union.

Information for Users on Disposal of Old Equipment

[European Union]

This symbol indicates that the electrical and electronic equipment should not be disposed as general household waste at its end-of-life. Instead, the product should be handed over to the applicable collection point for the recycling of electrical and electronic equipment for proper treatment, recovery and recycling in accordance with your national legislation.

By disposing of this product correctly, you will help to conserve natural resources and will help prevent potential negative effects on the environment and human health which could otherwise be caused by inappropriate waste handling of this product. For more information about collection point and recycling of this product, please contact your local municipal office, your household waste disposal service or the shop where you purchased the product.

Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

(Business users)

If you wish to dispose of this product, please visit our web page www.jvc-europe.com to obtain information about the take-back of the product.

[Other Countries outside the European Union]

If you wish to dispose of this product, please do so in accordance with applicable national legislation or other rules in your country for the treatment of old electrical and electronic equipment.

FOR USA AND CANADA

CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK. DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash wish arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that age" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Information for USA

This device complies with part 15 of the FCC Rules. Changes or modifications not approved by JVC could void the user's authority to operate the equipment.
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This device complies with Part 15 of the FCC Rules.
Operation is subject to the following two conditions: (1)This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Due to design modifications, data given in this instruction book are subject to possible change without prior notice.

WARNING:
TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

AVERITISSEMENT:
POUR EVITERLES RISQUES D’INCENDIE OU D’ELECTROCUTION, NE PAS EXPOSER L’APPAREILA L’HUMIDITE OU A LA PLUIE.

INFORMATION (FOR CANADA)
RENSEIGNEMENT (POUR CANADA)

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil num rique de la Classe A est conforme à la norme NMB-003 du Canada.

WARNING (FOR EUROPE):
This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Dear Customer
This apparatus is in conformance with the valid European directives and standards regarding electromagnetic compatibility and electrical safety.
European representative of Victor Company of Japan, Limited is :
JVC Technical Services Europe GmbH
Postfach 10 05 04
61145 Friedberg
Germany

Sehr geehrter Kunde, sehr geehrte Kundin, dieses Gerät stimmt mit den gültigen europäischen Richtlinien und Normen bezüglich elektromagnetischer Verträglichkeit und elektrischer Sicherheit überein.
Die europäische Vertretung für die Victor Company of Japan, Limited ist:
JVC Technical Services Europe GmbH
Postfach 10 05 04
61145 Friedberg
Deutschland

FOR USA-California Only
This product contains a CR Coin Cell Lithium Battery which contains Perchlorate Material - special handling may apply.
See
www.dtsc.ca.gov/hazardouswaste/perchlorate

Operating Environment

Recommended Computer Specifications

OS	: Windows XP(Professional or Home Edition)(SP2)
	: Windows Vista Business(SP1)
CPU	: Pentium4 2 GHz or higher
Memory capacity	: 1 GB or more
Free hard disk space	: 512 MB or more
Display and video card	: 1600 x 1200 pixels or larger, True Color (24 bits or 32 bits) VRAM 8 MB or more (256 MB and above recommended)
Sound card	: Sound Blaster (PCI recommended)
Web browser	: Internet Explorer
	XP : Version 6.0
	Vista : Version 7.0

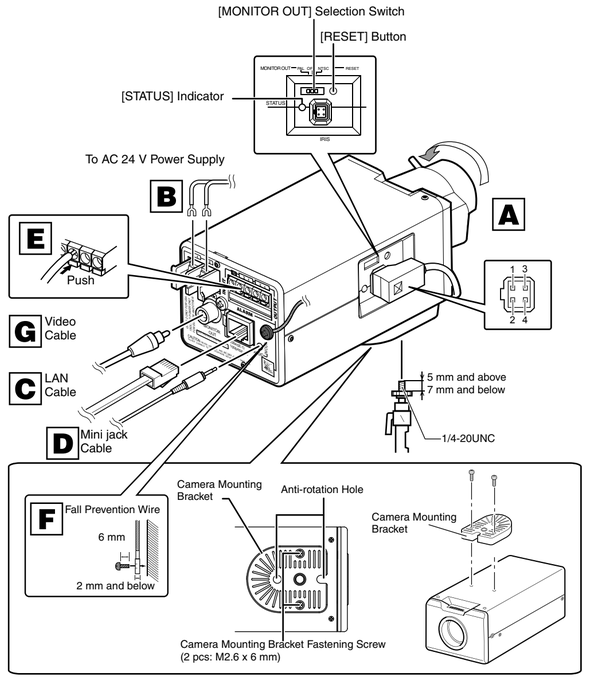
LAN Environment

- 10BASE-T/100BASE-TX network interconnected using devices such as an IEEE802.3-compliant switching hub.
- IEEE802.3af-compliant switching hub when PoE is in use.
- IGMPv2-compliant network when multicast is in use.

Memo :
- To make use of the built-in MPEG4 Viewer of VN-X35U, install “ffdshow” that is opensource codec. You can download “ffdshow” from the Internet.

■ The latest version

Please visit V.NETWORKS web site to check the latest firmware at
http://www.jvc-victor.co.jp/english/products-e.html
(The latest firmware can be found on V.NETWORKS ➡ download page)



Connection of Camera

A Mounting the Lens

Memo :
- Make use of a megapixel lens.

1 **Turn the lens in the clockwise direction to mount it to the camera firmly**

2 **When using a DC iris lens, pay attention to the pin position before connecting the lens cable**

B Power Connection

Electricity can be supplied to this product either by connecting to the AC 24 V power supply or using the PoE.

- When power is supplied to this product, the [STATUS] indicator at the side lights up. The indicator lights up in orange color during startup, and switches to green color after startup is complete.

■ Power cord in the case for connecting to AC 24V (Reference value)

Conductor Diameter (AWG No.)	ø1.0 mm(18) and above	ø1.6 mm(18) and above	ø2.0 mm(12) and above
Maximum Extension	150 m	400 m	630 m

Note :
- Make sure to select only one mode of electrical supply. Connecting the power cord and the LAN cable for the PoE at the same time may result in failure or malfunction of the camera.
- After DHCP timeout, all IP addresses of VN-X35Us are set to 192.168.0.2 by default. When the power of multiple cameras within the same LAN environment are turned on at the same time, the IP address of the cameras overlap, thus preventing proper access. As such, make sure to turn on the power of the cameras one by one and configure IP address that is not duplicated.

Warning

The rated power of this product is AC 24 V, 50 Hz/60 Hz. Make sure to use it with the correct voltage.
Use an AC 24 V supply that is isolated from the primary power supply.
Supplying a power beyond the rated value may result in failures, smoke or fire. When the camera breaks down, turn off the power and contact our service center immediately.
When a power beyond the rated value is supplied, the internal components may be damaged even if no abnormality is found on the appearance and operation of the camera.
Please contact our service center immediately for servicing (charged separately).

C LAN Cable Connection

Connect the camera to a hub or computer using a LAN cable.

- When connecting to a hub : Make use of a straight cable.
- When connecting to a computer : Make use of a cross cable.

Cable to use
- Shielded cable
- Length of 100 m or shorter

Memo :
- To distribute images to the network, set the [MONITOR OUT] selection switch at the side of this product to “OFF”. After changing the switch settings, press the [RESET] button for less than 2 seconds to reboot the camera.

D Audio Signal Input/Output Terminal Connection

Connect the mini jack ø3.5 stereo cable.
L ch : Connect to speakers with built-in amplifier, etc.
R ch : Connect to plug-in power type capacitor microphone
(Supply voltage：DC 2.7 V(typ.), Input impedance：2.2 KΩ(typ.))

Note :
- Make sure that the external microphone is connected to the R ch and not other channels.
- When the microphone jack is plugged directly into the unit's [AUDIO IN/ OUT] terminal, loud noises can be distributed to the network. (☞ Page 49 of [INSTRUCTIONS])

E Alarm Input/Output Terminal Connection

Connect the alarm input/output terminals with external devices, such as a sensor or buzzer.
Plug/Unplug the cable while pressing the button as shown in the diagram.

Cable to use
- Shielded cable
- Length of 50 m or shorter

Installation of Camera

F Mounting the Camera

Use the screw hole on the camera mounting bracket to mount this camera to a fixer or rotating platform.

- The camera mounting bracket is mounted on the bottom surface of the camera by default. To mount it to the top surface, do so by removing the two fastening screws from the camera mounting bracket. Make sure to fasten the screws firmly.

Warning

- To prevent the camera from falling off, ensure that it is connected to a firm place (ceiling slab or channel) using a fall prevention wire.
- Pay also careful attention to the length, strength, wiring, and material (insulating properties) of the fall prevention wire to be used. The length used should be as short as possible within the permissible range of the mounting length. The wire should be strong enough to withstand the total weight of this product and the fixer. (Pay also attention to the finishing at the end of the wire.)
- Mount the fall prevention wire using the black screw at the rear of the camera unit.
- Designated screw for fastening of fall prevention wire (M3 x 6 mm): Screws beyond the specified length must not be used as doing so may damage the interior.

G Monitor Signal Output Terminal Connection

Make use of this terminal for camera angle adjustment during installation or focus adjustment in the Focus Assist mode. Connect it to devices such as a video monitor using a video cable (RCA).

Memo :
- Select the signal system for the monitor output using the [MONITOR OUT] selection switch at the side of this product. (“NTSC” or “PAL”)
  After adjusting the camera angle, set the switch to “OFF”. After changing the switch settings, press the Reset button for less than 2seconds to reboot the camera.

H Focus Adjustment

If focus assist mode is used, lens iris will be opened to enable high precision focus adjustment.

1 **Set the [MONITOR OUT] selection switch to NTSC or PAL**

2 **Press the [RESET] button for 2seconds or longer, and release within 5seconds**
- Doing so switches to the Focus Assist mode. The [STATUS] indicator alternates lighting up in green color and orange color alternately.
- The central portion of the image is enlarged.

3 **Shoot the object**

4 **Adjust the lens focus**

5 **Set the [MONITOR OUT] selection switch to OFF**

6 **Press the [RESET] button for less than 2seconds to restart**
- Focus assist mode is disabled.
- It takes about one minute for the camera to reboot.
- While rebooting, the [STATUS] indicator lights up in orange.

Memo :
- To disable focus assist mode, press [RESET] button between 2 to 5 seconds.
- You can also enable the Focus Assist mode on the viewer. (☞ Page 94 of [INSTRUCTIONS])

Continued

IP Address Settings

IP address setting at the computer

Set the computer to an IP address that enables communication with VN-X35U. (Procedures described in this item are intended for Windows XP users.)

1 Click [Start]

- Select in the sequence of [Control Panel]-[Network Connection]-[Local Area].
- Windows Vista :
  Select in the sequence of [Settings]-[Control Panel]-[Network and Sharing Center]-[Manage network connections].

2 The computer on which Internet Explorer is launched automatically selects the connected network

- Right-click and select [Properties].
- Check to ensure that the [Client for Microsoft Networks] and [Internet Protocol(TCP/IP)] check boxes are selected.
- Windows Vista : Check to ensure that the [Microsoft Network Client] and [Internet Protocol Version 4 (TCP/IPv4)] checkboxes are selected.

3 Select [Internet Protocol(TCP/IP)] and click [Properties]

Windows Vista : Select [Internet Protocol Version 4 (TCP/IPv4)], and click [Properties]

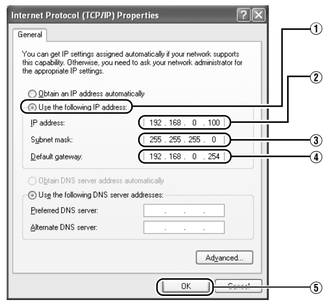
4 Set the IP address

① Select [Use the following IP address].
② Specify the [IP address]. (For example, use 192.168.0.100 when VN-X35U is in its default settings and there is no DHCP server)

Memo :

- Make sure that you take note of the original IP address before altering.
- Ensure that a duplicate IP address is not specified within the same network environment.

③ Set [Subnet Mask] to a value that is appropriate for the setting operation. Consult the network administrator if you have any queries.
(Use 255.255.255.0 when VN-X35U is in its default settings and there is no DHCP server)
④ When a [Default Gateway] is present, make use of the corresponding IP address (e.g., 192.168.0.254).
⑤ Click [OK].


Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address: 192 . 168 . 0 . 100
Subnet mask: 255 . 255 . 255 . 0
Default gateway: 192 . 168 . 0 . 254
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel
①
②
③
④
⑤

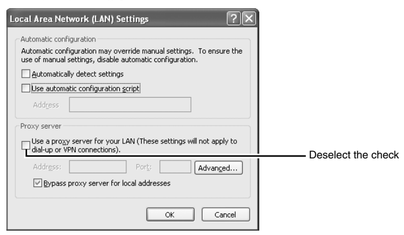
5 Click [OK] on the "Local Area Connection Properties" screen

Changing the IP address using the Internet Explorer

1 Launch the Internet Explorer on the computer

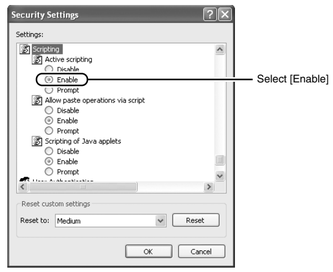
2 When proxy settings are enabled in the Internet Explorer, follow the steps below to disable the proxy of the Internet Explorer

- Select in the order of [Tool]-[Internet Options]-[Connections]-[LAN Setting], followed by deselecting the check for [Use a proxy server for your LAN] under [Proxy Server] of the [Local Area Network (LAN) Settings] window.


Local Area Network (LAN) Settings
Automatic configuration
Automatic configuration may override manual settings. To ensure the use of manual settings, disable automatic configuration.
Automatically detect settings
Use automatic configuration script
Address
Proxy server
Use a proxy server for your LAN (These settings will not apply to dial-up or VPN connections).
Address: Port: Advanced...
Bypass proxy server for local addresses
OK
Cancel
Deselect the check

3 If the active script of the Internet Explorer is disabled, follow the steps below to enable it

- Select [Trusted sites] under [Tool]-[Internet Options]-[Security]. Upon doing so, the [Sites...] button directly below becomes active. Click this button and deselect the check in the displayed window, and add the IP address of the camera. to the zone. When VN-X35U is in its default settings and there is no DHCP server, add the following URL.
  http://192.168.0.2
- Next, select [Trusted sites] under [Tool]-[Internet Options]-[Security], and press the [Custom Level] button. Select [Enable] under [Scripting]-[Alarm] of the [Security Settings] window that has been opened.



4 Launch the Internet Explorer

① Enter IP address of the camera into the address field. (Example : http://192.168.0.2)
② Click [Go].

Memo :

- If the proxy server settings for access to the Internet via the Internet Explorer is enabled, you may not be able to specify the IP address directly. In this case, change the proxy settings of the Internet Explorer.
- After the [Security Settings] screen appears, press the [OK] button to proceed.

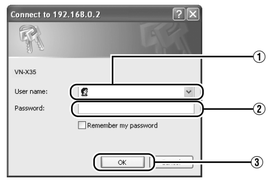
■ When the IP address of VN-X35U is unknown

IP address settings cannot be changed by accessing via a computer when the IP address of VN-X35U is unknown. In this case, you can obtain information on the IP address using the following method.

- "Search tool" is available in the "TOOL_E" folder in the attached CD-ROM. You can use this tool to search for information on VN-X35U within the LAN.
  ※ For details on the "Search tool", please refer to the "README" file in the "TOOL_E" folder.

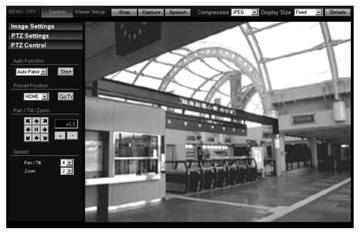
5 Enter the user name and password (login as administrator)

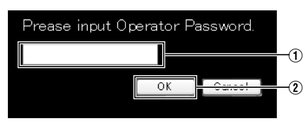
① Enter the user name. This is set to "admin" by default.
② Enter the password. This is set to "jvc" by default.
③ Click [OK].



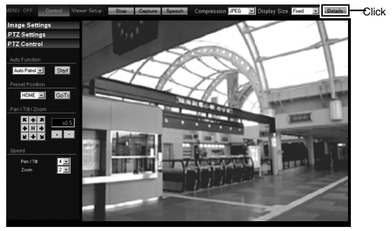
6 Built-in Viewer of VN-X35 is displayed and the operator password entry screen appears

① Enter the password of operator. This is set to "jvc" by default.
② Click [OK].



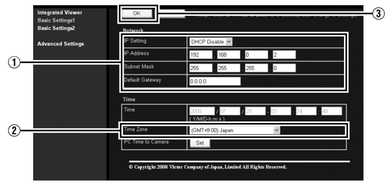


7 Click [Details] of the VN-X35 Built-in Viewer



8 The [Basic Settings 1] screen appears

① Set the [IP Setting] item to [DHCP Disable]. Enter the values you wish to specify in the [IP Address], [Subnet Mask] and [Default Gateway] fields.
② Select the [Time Zone].
③ Click [OK].



Memo :

- To open [Basic Settings 1] page directly, enter URL below to Internet Explorer.
  Example: http://192.168.0.2/cgi-bin/x35display.cgi?x35basicmenu1.html

9 A confirmation screen appears. Press the [OK] button

- VN-X35U restarts using the new IP address. It takes about one minute for the camera to reboot.

Memo :

- Access from this computer may fail when the IP address of VN-X35U is changed. To enable access to VN-X35U from the same computer, alter the IP address at the computer accordingly.

When the display or configuration of the opened screen appears strange, check using the following procedures.

① Click [Start]-[Control Panel]-[Display] and open the [Display Properties] window
② Click the [Settings] tab in the [Display Properties] window and click the [Advanced] button
③ Check that [DPI setting] in the [General] tab has become [Normal size(96DPI)]
④ Otherwise, change the setting to [Normal size(96DPI)] and reboot Windows

Configuring settings using the Internet Explorer

Configure the picture quality and alarm settings using the Internet Explorer.
※ For details, please refer to the instruction manual (pdf) in the CD-ROM.

Operating Built-in Viewer

Built-in Viewer enables you to monitor JPEG or MPEG4 images, send/receive audio data, perform PTZ operations, and register preset positions.
※ For details, please refer to the instruction manual (pdf) in the CD-ROM.

Specifications

Supply voltage	: AC 24 V 50 Hz/60 Hz or PoE (DC -48 V)
Current consumption	: AC 24 V 0.35 A, PoE 135 mA (6.5 W)
Mass	: 510g (1.17 lbs)
Dimension [Unit: mm (inch)]	: 66 (2-5/8) × 63 (2-1/2) × 126 (5)

※ Specifications and appearance of this product are subject to changes for improvement without prior notice.

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LST0744-001A